NAVAL AVIATION SYSTEMS

SLUDGE - Better things through chemistry

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Sludge Background

- Largest waste stream component - sludge from the industrial wastewater treatment plant (IWTP) and process applications.
- Sludge Post-treatment - could produce a Class A or B soil conditioner for land application.
- Sludge dewatering - could reduce the volume disposed by as much as 90%.

Sludge Issue

- Problem: Sludge is expensive to manufacture and discard.
  - In 1998, NADEP CP produced 1.46M pounds of material, costing over $300,000 to discard.
  - Largest component was hazardous (heavy metal) sludge.

Sludge Objective

- Solution: Find a way to produce better, cheaper, or less, sludge.
  - Combine new wastewater and sludge treatment methods, reducing the solid and hazardous waste streams to generate a savings of $150K/year.

Sludge Methodology

- Accomplishment Vehicle:
  - RepTech project to uncover the science,
  - Capital Purchases Program project to acquire the "stuff" to implement.

Sludge Technical Approach

- Phase I: Lab testing and evaluation of relevant technologies (project meeting and sampling 15 Mar 01)
- Phase II: Demo pilot-scale sludge treatment process at Cherry Point. Pre- and post treatment analysis to show improvement.

Sludge Technical Approach

- Phase III: Write specs and implement project (Capital Purchases Program funds for implementation)

The Sludge Folks

- Performing Activity:
  - iMAST Repair Technology Program, Applied Research Laboratory, Dr. Brad Striebig
- Technical Assistants (NADEP CP):
  - Bob King, Technology Insertion Engineer
  - Amy Morgan, Environmental Engineer